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Remarks**Introduction**

5 Claims 1 through 20 are pending in the application. Claims 1, 10 and 20 are the independent claims. There are no multiple dependent claims. No new claims have been added.

Claim Rejection 35 USC §103

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Claims 1-3, 5-7 rejected in light of Waud in view of Nystrom and Wallace

 The examiner rejected claims 1 - 3 and 5 - 7, under 35 USC §103(a) in light of U.S. Patent 3,682,507, granted to Cornelius Byron Waud (Waud),
15 in view of U.S. Patent 5,746,039, granted to Robert G. Nystrom (Nystrom), and in view of U.S. Patent 4,325,985, granted to Richard B. Wallace (Wallance).

 It appears that the examiner rejected claim 1 in light of Waud and
20 Nystrom, with Nystrom teaching the coating of the fastener and Waud teaching all the remaining elements of claim 1.

 By this paper, claim 1 has been amended. Claim 1 now calls for a connection between a fastener and masonry support structure. Support for this amendment is found in the specification at page 4, line 23 and page 11,
25 line 26 and in figures 1 and 2.

 Waud does not teach a fastener connected to a masonry support structure. Waud only teaches connecting a thin sheet of material to a thicker sheet spaced by a predetermined thickness of insulating material. There is no suggestion in Waud to make the combination suggested by the
30 examiner, or the combination as now claimed.

 In addition, the examiner cites column 3, line 55 of Nystrom for the teaching to add a coating to the fastener of Waud. We have reviewed the cited material in U.S. Patent 5,746,039, but not U.S. Patent 5,304,023 which is incorporated by reference, and can find nothing in its description of
35 an adhesive coating on a fastener that is suitable for bonding to a painted

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1 surface that suggests the connection of a fastener to a masonry structure in
the claims as now amended.

Finally, we do not believe that Waud teaches all of the elements of the
fastener. The claims as originally filed and as amended call for: "material
5 transfer means within said second diameter extending from a location
adjacent said tip to a location adjacent said second thread."

For the reasons stated above, we believe claim 1 is allowable over the
art cited by the examiner.

10 It appears that the examiner rejected claim 2 in light of Waud,
Nystrom and Wallace, with Waud and Nystrom teaching the elements of
claim 1 and Wallace teaching the coating of the fastener with a
microencapsulated adhesive as added by claim 2.

Claim 2 depends from claim 1, incorporating all of its limitations. We
15 believe claim 1 is allowable over the prior art cited by the examiner, and so
claim 2 is also allowable.

It appears that the examiner rejected claim 3 in light of Waud and
Nystrom, with Nystrom and Waud teaching the coated fastener of claim 1
20 and Waud teaching the added element of "a radially extending wing" of claim
3.

We would like to point out that the wings in Waud, described at
column 4, line 4 are used for a different purpose. They actually prevent the
fastener from extending deeper into the purlin.

25 Furthermore, claim 3 depends from claim 1, incorporating all of its
limitations. We believe claim 1 is allowable over the prior art cited by the
examiner, and so claim 3 is also allowable.

It appears that the examiner rejected claim 5 in light of Waud and
30 Nystrom, with Nystrom and Waud teaching the coated fastener of claim 1,
and Waud teaching the added element of "buttress threads" of claim 5.

We would like to point out that buttress threads are defined in the
application as originally filed at page 8, line 10. We find no description of
buttress threads in Waud, nor do the threads shown in figure 1 of Waud
35 appear to fit the definition provided in the specification of the present
application.

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1 Furthermore, claim 5 depends from claim 1, incorporating all of its limitations. We believe claim 1 is allowable over the prior art cited by the examiner, and so claim 5 is also allowable.

5 It appears that the examiner rejected claim 6 in light of Waud and Nystrom, with Nystrom and Waud teaching the coated fastener of claim 1, and Waud teaching the added element of a "thread crest diameter which is substantially equal" over the length of the thread.

Claim 6 depends from claim 1, incorporating all of its limitations. We
10 believe claim 1 is allowable over the prior art cited by the examiner, and so claim 6 is also allowable.

It appears that the examiner rejected claim 7 in light of Waud and Nystrom, wherein Nystrom and Waud teach the coated fastener and the
15 added element of the coating being a polymer is a matter of obvious design choice.

Claim 7 depends from claim 1, incorporating all of its limitations. We believe claim 1 is allowable over the prior art cited by the examiner, and so claim 7 is also allowable.

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The examiner rejected claim 4, under 35 USC §103(a) in light of Waud in view of Wallace, and in view of U.S. Patent 4,257,307, granted to Werner Regensburger (Regensburger).

It appears that the examiner rejected claim 4 in light of Waud in view
25 of Wallace and Regensburger, with Waud and Wallace teaching all of the elements of claim 1 and Regensburger supplying the teaching of a "carbide drill point" added by claim 4.

Claim 4 depends from claim 1, incorporating all of its limitations. We believe claim 1 is allowable over the prior art cited by the examiner, and so
30 claim 4 is also allowable.

The examiner rejected claims 8 and 9, under 35 USC §103(a) in light of Waud in view of Wallace, and in view of U.S. Patent Reissue 34,969, granted to Tony L. Dixon et al (Dixon).

35 It appears that the examiner rejected claim 8 in light of Waud and Wallace and Dixon, with Waud and Wallace teaching all of the elements of

1 claim 1, and Dixon supplying the teaching of a "protuberance extending
helically between adjacent convolutions of at least one of said first and
second threads" added by claim 8.

We note that Dixon is a masonry anchor; however, Dixon does not
5 teach a self-drilling masonry anchor. Claim 8 depends from claim 1,
incorporating all of its limitations. We believe claim 1 is allowable over the
prior art cited by the examiner, and so claim 8 is also allowable.

It appears that the examiner rejected claim 9 in light of Waud and
10 Wallace and Dixon, with Waud and Wallace teaching all of the elements of
claim 1, Dixon supplying the teaching of a "protuberance extending helically
between adjacent convolutions of at least one of said first and second
threads" added by claim 8, and Dixon also teaching that the "protuberance
has a crest diameter greater than that of the adjacent convolutions" as added
15 by original claim 9.

First, we would like to note that by this amendment, we have
amended claim 9 to call for the "protuberance" to have a "crest diameter less
than that of the adjacent convolutions". No new matter is added. Support
for this amendment is found in the specification as originally filed at page 8,
20 lines 18 and 26, and also in figures 3 through 7.

We note that Dixon is a masonry anchor; however, Dixon does not
teach a self-drilling masonry anchor. Claim 9 depends from claim 8 and 1,
incorporating all of their limitations. We believe claim 1 is allowable over the
prior art cited by the examiner, and so claim 8 is also allowable.
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The examiner rejected claims 10 - 14 under 35 USC §103(a) in light of
Waud, in view of Wallace and U.S. Patent 5,611,652, granted to Richard J.
Duffy et al (Duffy).

30 It appears that the examiner rejected claim 10 in light of Waud,
Wallace, Duffy and the general level of skill in the art, with Waud teaching
the structural elements of the fastener, Wallace teaching the coating of the
fastener, Duffy teaching a resin-coated fastener, and it being an obvious
matter of design choice to form the resin into a "bead".

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1 First, we respectfully disagree that it is a matter of obvious design
choice to form a "bead" from resin on a fastener, and respectfully request
that the examiner provide specific teaching of this element.

Second, by this paper, claim 1 has been amended. Claim 1 now calls
5 for a connection between a fastener and masonry support structure. Support
for this amendment is found in the specification at page 4, line 23 and page
11, line 26 and in figures 1 and 2.

Waud does not teach a fastener connected to a masonry support
structure. Waud only teaches connecting a thin sheet of material to a
10 thicker sheet spaced by a predetermined thickness of insulating material.
There is no suggestion in Waud to make the combination suggested by the
examiner, or the combination as now claimed.

For the reasons stated above, we believe claim 10 is allowable over
the art cited by the examiner.

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Claim 11, which depends from claim 10, was further rejected, because
the examiner argues that Wallace teaches a "bead" composed of "hardener,
a resin and nylon powder".


Claim 11 depends from claim 10, incorporating all of its limitations.
20 We believe claim 10 is allowable over the prior art cited by the examiner, and
so claim 11 is also allowable.

Claim 12, which depends from claim 11, was rejected, because the
25 examiner argues that a "bead" that "has a generally cardioid-shaped
configuration which subtends substantially 360° around the axis of the
shank" is a matter of obvious design choice.

We respectfully disagree that forming the specifically claimed
cardioid-shaped bead is a matter of obvious design choice, and respectfully
30 request that the examiner provide specific teaching of this element.

Furthermore, claim 12 depends from claims 10 and 11, incorporating
all of their limitations. We believe claim 10 is allowable over the prior art
cited by the examiner, and so claim 12 is also allowable.

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1 Claim 13 which depends from claim 11, was rejected, because the
examiner considers it a matter of obvious design choice to use "30% nylon
powder by volume" in the bead.

First, we respectfully disagree that it is a matter of obvious design
5 choice to form a "bead" with the specific amount of nylon powder, and
respectfully request that the examiner provide specific teaching of this
element.

Claim 13 depends from claims 10 and 11, incorporating all of their
limitations. We believe claim 10 is allowable over the prior art cited by the
10 examiner, and so claim 13 is also allowable.

Claim 14 which depends from claim 11, was rejected, because the
examiner considers it a matter of obvious design choice to use the resin,
15 hardener and nylon powder in the bead in the specific amounts claimed.

First, we respectfully disagree that it is a matter of obvious design
choice to form a "bead" with the specified amounts of nylon powder, resin
and hardener and respectfully request that the examiner provide specific
teaching of this element.

20 Claim 14 depends from claims 10 and 11, incorporating all of their
limitations. We believe claim 10 is allowable over the prior art cited by the
examiner, and so claim 14 is also allowable.

It appears that the examiner rejected claim 15, which depends from
25 claim 10, in light of Waud, Wallace, Duffy and the general level of skill in the
art, with Waud teaching the structural elements of the fastener, Wallace
teaching the coating of the fastener with a microencapsulated adhesive,
Duffy teaching a resin-coated fastener, and it being an obvious matter of
design choice to form the resin into a "bead".

30 Since claim 15, depends from claim 10, we believe that claim 15 is
now allowable for the reasons stated with respect to claim 10. We also
believe claim 15 is allowable for the same reasons advance with respect to
claim 2.

35 It appears that the examiner rejected claim 16, which depends from
claim 10, in light of Waud, Wallace, Duffy and the general level of skill in the

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1 art, with Waud teaching the structural elements of the fastener and the
"radially extending wing", Wallace teaching the coating of the fastener,
Duffy teaching a resin-coated fastener, and it being an obvious matter of
design choice to form the resin into a "bead".

5 Since claim 16, depends from claim 10, we believe that claim 16 is
now allowable for the reasons stated with respect to claims 10. We also
believe claim 16 is allowable for the same reasons advance with respect to
claim 3.

10 It appears that the examiner rejected claim 17, which depends from
claim 10, in light of Waud, Wallace, Duffy, Regensburger and the general
level of skill in the art, with Waud teaching most of the structural elements
of the fastener, Regensburger supplying the teaching of a "carbide drill
point", Wallace teaching the coating of the fastener, Duffy teaching a
15 resin-coated fastener, and it being an obvious matter of design choice to
form the resin into a "bead".

Since claim 17, depends from claim 10, we believe that claim 17 is
now allowable for the reasons stated with respect to claims 10. We also
believe claim 17 is allowable for the same reasons advance with respect to
20 claim 4.

It appears that the examiner rejected claim 18, which depends from
claim 10, in light of Waud, Wallace, Duffy, and the general level of skill in
the art, with Waud teaching the structural elements of the fastener,
25 including the "buttress threads", Wallace teaching the coating of the
fastener, Duffy teaching a resin-coated fastener, and it being an obvious
matter of design choice to form the resin into a "bead".

Since claim 18, depends from claim 10, we believe that claim 17 is
now allowable for the reasons stated with respect to claims 10. We also
30 believe claim 18 is allowable for the same reasons advance with respect to
claim 5.

It appears that the examiner rejected claim 19, which depends from
claim 10, in light of Waud, Wallace, Duffy, and the general level of skill in
35 the art, with Waud teaching the structural elements of the fastener,
including "uniform axial spacing" of the thread, Wallace teaching the coating

1 of the fastener, Duffy teaching a resin-coated fastener, and it being an obvious matter of design choice to form the resin into a "bead" and to form the proximal portion and the first intermediate portion with specified axial dimensions.

5 Since claim 19, depends from claim 10, we believe that claim 19 is now allowable for the reasons stated with respect to claims 10.

It appears that the examiner rejected claim 20 in light of Waud, Wallace, Duffy and the general level of skill in the art, with Waud teaching
10 the structural elements of the fastener, Wallace teaching the coating of the fastener, Duffy teaching a resin-coated fastener, and it being an obvious matter of design choice to form the resin into a "bead".

First, we respectfully disagree that it is a matter of obvious design choice to form a "bead" from resin on a fastener, and respectfully request
15 that the examiner provide specific teaching of this element.

Second, by this paper, claim 1 has been amended. Claim 1 now clearly calls for a connection between a self-drilling fastener and masonry support structure, with the masonry support structure being positively claimed. Waud does not teach a fastener connected to a masonry support
20 structure. Waud only teaches connecting a thin sheet of material to a thicker sheet spaced by a predetermined thickness of insulating material. There is no suggestion in Waud to make the combination suggested by the examiner, or the combination as now claimed.

Second, the examiner has failed to state which piece of prior art
25 teaches the suitability of "epoxy" as a resin for use in a masonry connection, and we respectfully request the examiner to provide specific teaching of this element.

For the reasons stated above, we believe claim 20 is allowable over the art cited by the examiner.

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Conclusion

Submitted with this amendment is a new information disclosure statement. We request examination of the claims in light of the amendments
35 made herein and the prior art provided in the information disclosure statement.

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AMENDED CLAIMS IN MARKED-UP FORM

1. (Twice amended) A [fastener] connection comprising:

5 a masonry support structure and a fastener received in said masonry support structure, said fastener comprising:

head means comprising a generally planar engagement surface and drive means for receiving an applied torque;

a shank axially extending from said head means at a proximal end to a distal end terminating at a tip, said shank comprising a proximal portion
10 defining a first diameter adjacent said shank proximal end and a distal portion having a second diameter less than said first diameter adjacent said shank distal end, a first thread extending helically along a portion of said proximal portion and a second thread extending helically along a portion of said distal portion, said shank distal end defining material transfer means within said
15 second diameter extending from a location adjacent said tip to a location adjacent said second thread;

a coating comprising a resin or an adhesive in a micro-encapsulated form disposed over at least one of the group consisting of said shank distal portion, said shank proximal portion, said first thread and said second thread;
20 and

self-drilling means adjacent said shank tip for drilling into [a] said support structure.

2. (Once amended) The [fastener] connection of claim 1, wherein said
25 coating is an adhesive in a microencapsulated form.

3. (Once amended) The [fastener] connection of claim 1 further comprising a radially extending wing extending from said shank distal portion.

30 4. (Once amended) The [fastener] connection of claim 1, wherein said self-drilling means comprises a carbide drill point.

5. (Once amended) The [fastener] connection of claim 1, wherein said first and second threads are buttress threads.

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1 6. (Once amended) The [fastener] connection of claim 1, wherein said first thread defines a first thread crest diameter which is substantially equal over the length of said first thread and said second thread crest diameter is substantially equal over the length of said second thread.

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7. (Once amended) The [fastener] connection of claim 1, wherein the coating is a polymer.

8. (Once amended) The [fastener] connection of claim 1 comprising a
10 protuberance extending helically between adjacent convolutions of at least one of said first or second threads.

9. (Once amended) The [fastener] connection of claim 8, wherein the protuberance has a crest diameter [greater] less than that of adjacent
15 convolutions.

10. (Once amended) A [fastener] connection comprising:
a masonry support structure and a fastener received in said masonry support structure, said fastener comprising:
20 head means comprising a generally planar engagement surface and drive means for receiving an applied torque;
a shank axially extending from said head means at a proximal end to a distal end terminating at a tip comprising self-drilling means for drilling into [a] said support structure, said shank comprising a proximal portion adjacent
25 said shank proximal end, a first intermediate portion adjacent said proximal portion, a second intermediate portion between said first intermediate portion and said tip and a thread extending helically along said intermediate portions; and
a resin bead applied to said first intermediate portion.

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11. (Once amended) The [fastener] connection of claim 10, wherein said bead is composed of a hardener, a resin and nylon powder.

12. (Once amended) The [fastener] connection of claim 10, wherein said
35 bead has a generally cardioid-shaped configuration which subtends substantially 360° around the axis of the shank.

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13. (Once amended) The [fastener] connection of claim 11, wherein said bead is composed of approximately 30% nylon powder by volume.

5 14. (Once amended) The [fastener] connection of claim 11, wherein said bead is composed of a formulation that was made with approximately five milliliters of hardener, five milliliters of resin and five milliliters of nylon powder.

10 15. (Once amended) The [fastener] connection of claim 10 further comprising an adhesive in a microencapsulated form applied to said second intermediate portion.

16. (Once amended) The [fastener] connection of claim 10 further
15 comprising a radially extending wing extending from said shank distal portion.

17. (Once amended) The [fastener] connection of claim 10, wherein said self-drilling means comprises a carbide drill point.

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18. (Once amended) The [fastener] connection of claim 10, wherein said thread is a buttress thread.

19. (Once amended) The [fastener] connection of claim 10, wherein said
25 thread has a generally uniform axial spacing S and said proximal portion extends axially a distance ranging between 2-3 S and said first intermediate portion extends axially a distance approximately 4-5 S.

20. (Once amended) A [fastener for anchoring into a masonry support
30 structure] connection comprising:

a masonry support structure and a fastener received in said masonry support structure, said fastener comprising;

a head comprising an engagement surface and drive means for receiving an applied torque;

35 a shank axially extending from said head at a proximal end to a distal end terminating at a tip, said shank comprising a proximal portion adjacent

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1 said shank proximal end, an intermediate portion between said proximal portion and said tip and a thread extending helically along said intermediate portion, said shank tip comprising self-drilling means for drilling into the support structure; and

5 a bead comprising an epoxy resin applied to said first intermediate portion,

so that upon driving said fastener into said structure said thread mechanically engages said structure and said shank bonds with said structure.

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